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NOAA OCEANIC HAPPENINGS

U.S. LEADS IN NEGOTIATING HISTORIC TUNA COMPLIANCE MEASURES

An historic provision, proposed and negotiated by the United States at the annual meeting of the International Commission for the Conservation of Atlantic Tunas (ICCAT), establishes for the first time in an international fishery management organization a program for compliance with fish catch quotas by member nations.

The provision and other management measures and fishing quotas were unveiled on November 29th at the close of the ICCAT meeting, NOAA announced.

Additionally, ICCAT authorized countries to impose import bans against three non-member countries found to be undermining ICCAT's conservation regime for bluefin tuna. The import bans represent the first time multilateral trade measures have been authorized by an international fishery management organization to enforce compliance with conservation rules.

The United States considered compliance by both member and non-member countries to be the highest priority issue at the 1996 meeting of ICCAT. A major problem for ICCAT has been the lack of compliance with catch limits. With declining stocks, the compliance problem is magnified.

"Unless we can set appropriate quotas, and all of us play by the rules, we cannot effectively manage a fishery of a species that is capable of moving across the ocean in a single season," said Will Martin, NOAA deputy assistant secretary for international affairs. Martin headed the delegation of government officials, industry representatives, recreational interests, environmental groups and Congressional staff.

The historic measure regarding members' compliance with catch limits for bluefin tuna in the Western and Eastern Atlantic and for North Atlantic swordfish calls for members to repay 100 percent of any over-harvests as an initial penalty. In addition, repeated over-harvests can result in other penalties, including quota reductions of at least 125 percent of the over-harvests and, as a last resort, import bans.

In the case of non-members, ICCAT authorized countries to impose a ban on the import of bluefin tuna from non-members Belize, Honduras and Panama due to their inaction after being identified at the 1995 meeting as undermining ICCAT's bluefin conservation program. Regarding swordfish, non-member Trinadad and Tobago will be receiving written notification of ICCAT's concern that their fishing activities may be reducing the effectiveness of the ICCAT conservation program, a move which could possibly lead to an import ban in the future.

"The package of import bans plus the new compliance penalties is historic and shows that, at last, ICCAT is adding teeth to its major conservation programs," said Martin. "This is not a panacea for ICCAT's problems in managing Atlantic-wide fisheries," he added, "but it is a major step forward."

The annual total allowable catch (TAC) for bluefin tuna in the Western Atlantic for 1997-98 was increased by 150 metric tons (mt) to 2354 mt. The U.S. share of this quota has been established at 1344.4 mt, which represents a 33 mt increase in U.S. quota. This quota level is formulated to yield the status quo catch level of 2500 mt, which has been determined by ICCAT's science body as "sustainable," and allows a slow rebuilding. The U.S. and Canadian shares of the quota increase are lower than Japan's for these two years, to repay Japan in part for its voluntary contribution to U.S. and Canadian quota shares in the recent past.

For North Atlantic swordfish, TACs of 11,300 mt for 1997, 11,000 mt for 1998, and 10,700 mt for 1999 represent the second consecutive quota cut for this fishery. The new cuts will reduce catches to a level that will allow for replacement and stop the decline of the swordfish stock. The impact of these quota reductions on the U.S. fishery is partially offset by the increased share allocated to the United States under the new sharing agreement that was negotiated and adopted at last year's ICCAT meeting.

"ICCAT meetings are always tough," said Martin. "But this year's session was especially grueling, due to the number of extremely controversial subjects on the agenda. Negotiating quotas on declining stocks is a zero-sum game, and presents a situation where there is always some disappointment. We have tried to be responsible to the resources and responsive to our fishing constituents. The United States can be very proud of this year's ICCAT package."

ICCAT adopted a number of other management measures designed to address declines in other tuna stocks, including bluefin tuna in the Mediterranean and albacore in the South Atlantic. ICCAT, a 24-nation organization charged with the management of Atlantic tunas, swordfish and billfish, met in San Sebastian, Spain, Nov.22-29, 1996.

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NEW LAKE FLOOR MAPS OF GREAT LAKES REVEAL FEATURES NEVER SEEN BEFORE

A group of oceanographers studying the Great Lakes has developed topographic maps of the floors of Lake Michigan and western Lake Erie that show features more accurately than ever before, as well as some features that have never been seen before.

The scientists are conducting a Great Lakes data rescue project, using the entire historic hydrographic data base of the United States and Canada — which consists of several million water depth measurements — to complete topographic maps of the lake floors (a process called bathymetry). Consequently, a new reconstruction of lakefloor topographic features is emerging as more and more data are rescued.

This project is significant because new bathymetry is needed for environmental decision-making in the heavily populated and industrialized Great Lakes region; for modeling of water circulation and various climate change scenarios; and as a base map for scientifically and environmentally related field work.

New bathymetry also builds upon the wealth of geological knowledge from the lands surrounding Lake Michigan and becomes, at once, an important contribution to the geology of the region.

The data rescue project, sponsored by the National Oceanic and Atmospheric Administration, will be described in a poster session at the annual meeting of the Geological Society of America in Denver on Oct. 28th. The session, "Contributions to the Geomorphology of the Great Lakes," will be presented by Troy Holcombe of NOAA's National Geophysical Data Center, and David Divins of the University of Colorado and NOAA's Cooperative Institute for Research in Environmental Sciences.

Examples of features seen for the first time include: coalescing channels in the deep basins of Lake Ontario; channels excavated by propeller wash in the western basin of Lake Erie; a former delta of the Detroit River; a drowned headland and spits (narrow points of land) in western Lake Erie; and bedrock ledges in the deep basin of Lake Ontario.

Examples of features seen more clearly are: a fault scarp (deep slope) or fault-line scarp in Eastern Lake Erie; karst (an area of irregular limestone altered by erosion) topography in northeastern Lake Michigan; the Mackinac Channel connecting Lake Michigan with Lake Huron; a channel in Green Bay and a submerged delta in Lake Michigan which are records of drainage from Lake Superior during the Chippewa Lowstand; and flat-topped ridges in the islands area of Lake Michigan.

This new bathymetry highlights the need for geographic names for lakefloor features. Although a number of names for Great Lakes lakefloor topographic features have been used informally, up until now none of these lakefloor ridges, plateaus, fans, and channels were officially named. As an adjunct to this project, names that are new or used before for these features are being proposed to the U.S. Board on Geographic Names (BGN). Names for the larger lakefloor features in Lake Michigan and western Lake Erie are now approved by BGN for official use.

NOAA ANNOUNCES APPLICATION CRITERIA FOR DISASTER ASSISTANCE PLAN TO AID COMMERCIAL SALMON FISHERMEN IN WASHINGTON STATE

Criteria by which commercial salmon fishermen can apply for assistance under a $5.2 million federal vessel permit buyout program were announced last fall by the National Marine Fisheries Service. The program will provide financial assistance to those adversely impacted by the collapse of the salmon fishery, while helping the resource recover.

NOAA awarded $5.2 million to Washington state on September 30th for phase two of the Washington Salmon License Buyout Program, but waited to announce the application criteria until public comments on proposed program options could be solicited and evaluated.

"We have worked very closely with the Governor's office and the state's Department of Fish and Wildlife to design a formula that is fair to those who have suffered the greatest impacts of the fishery disaster," said Douglas K. Hall, former NOAA deputy administrator. "This program not only will compensate fishermen for their losses, but will also benefit the fishery resource in the long-term. This is truly a sustainable development approach to the salmon disaster."

Unlike the first phase of the buyout program, phase two will use a competitive ranking system that is based on actual losses incurred by the fishermen. In addition, awards will be limited to $75,000 under this program and will include participants prohibited from purchasing or operating a commercial salmon license for 10 years, unless he or she owned that license in 1995.

NOAA's National Marine Fisheries Service designed the competitive system in response to criticism that the original program resulted in the buyout of a large number of marginal permits.

The new system will give commercial salmon fishermen with substantial financial losses a greater opportunity to compete in the buyout program.

Here's how the new program works: the participant calculates his or her salmon disaster impact (SDI) by taking salmon fishery income derived from fishing during any calendar year (base year) from 1986-1991 minus the least amount of salmon fishery income derived from commercial salmon fishing during any calendar year (comparison year) between 1991-1995, and multiplying this number by 2.5. The

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fisherman then divides his or her bid by this number. This last number represents the offer ratio. Those with the lowest offer ratios will be chosen first until the funds for each allocated category of fishermen are exhausted. The permit buyout program, funded by NOAA, will be administered through the Washington State Department of Fish and Wildlife. The first phase of the program was implemented for $4 million last year by NOAA's Office of Sustainable Development under the Northwest Emergency Assistance Plan; 296 salmon fishery permits were retired.

ALLIANCE INVESTIGATES USE OF VOLUNTEERS TO RESTORE SEA GRASS IN CHESAPEAKE BAY AREA

The Alliance for Chesapeake Bay has received a $30,000 grant from the National Marine Fisheries Service Restoration Center to evaluate how best to use volunteers in restoring sea grass in areas where this valuable marine habitat has been lost. The funds are being distributed through the National Oceanic and Atmospheric Administration's Chesapeake Bay Office.

The Alliance and NOAA's Chesapeake Bay office are conducting a community-based sea grass restoration project in the St. Mary's River, a tributary of the Potomac River in southern Maryland.

The project has two goals: to assess the potential for increasing public involvement in restoration projects, and to evaluate transplantation techniques at sites in the Chesapeake Bay area where this sea grass formerly existed and where water quality requirements of submerged aquatic vegetation are now being met.

"We will use the funds to determine how to best restore areas of sea grass and other submerged aquatic vegetation by using our most valuable resource, involved citizens," said Fran Flanigan, Alliance executive director.

A recent transplanting demonstration reviewed techniques to be used in a larger transplanting project by citizen volunteers in the spring of 1997. Later this month volunteers will be trained in techniques of water quality monitoring — one of several comparative measures used to determine the successfulness of vegetation growth and survival. Following the transplant, the Alliance will complete its report assessing the efficacy of using volunteers to restore vegetation, and forward it to NOAA.

The Alliance is a private, non-profit, non-advocacy organization representing diverse interest groups dedicated to protecting and restoring the ecological health of the Chesapeake Bay and surrounding watershed through education, hands-on restoration projects, and public policy research and analysis.

"We expect this investment to improve coastal habitat and give us the knowledge to effectively involve interested and concerned volunteers in the habitat restoration programs, both here in the bay, and wherever habitat restoration can be accomplished with volunteer help," said Jim Burgess, acting director of the fisheries service's Office of Habitat Conservation.

The NMFS Restoration Center is the focal point within NOAA for restoring habitat important to the well-being of our nation's living marine resources. As part of its mission, the Restoration Center funds peer-reviewed and community-based restoration work designed to improve understanding of restoration ecology and the quality of coastal habitat nationwide.

The NOAA Chesapeake Bay Office funds peer-reviewed research directed at bay living resource problems, participates in Chesapeake Bay Program activities, provides technical assistance, and disseminates results and information to the general public.

VESSEL BUYOUT APPLICANTS SELECTED IN NEW ENGLAND

Applications from 76 fishermen were selected last December for further review under the Northeast vessel buyout program, the National Marine Fisheries Service (NMFS) announced. The program is designed to provide economic assistance to fishermen adversely affected by the collapse of the groundfish fishery, while helping fish stocks recover to a sustainable level. The successful applicants, who were selected from a total of 164, are mostly from Massachusetts and Maine, with one each from New Hampshire and New York.

"We want to quickly process these applications, approve them, buy out the vessels and have the owners dispose of them as soon as possible," said Leo Erwin, chief of NMFS' financial services branch. "But first we need to ensure the vessel owners are eligible, qualified, and meet the requirements of the Fishing Capacity Reduction Initiative (FCRI)."

These 76 vessel owners must now provide full documentation for all aspects of the original bid statements, including number of fishing trips over the past two years, gross revenues for all species and New England multispecies for years 1991-94, records of trips made during and after the application period, and other financial information. The fisheries service will then verify all information before processing the buyout.

The remaining applications will be held by NOAA. If the low scoring applications drop out either because they are found to be ineligible or because the applicants voluntarily withdraw, NOAA will notify the next lowest scoring applicants

By late fall of last year, 164 vessel owners submitted bids totaling $58.25 million in response to the National Oceanic and Atmospheric Administration's $23 million vessel buyout program.

The program is designed to provide economic assistance to fishermen affected by dwindling groundfish stocks while aiding the long-term viability of the fishery resource by reducing current overcapacity.

Based on an earlier pilot program, NOAA officials ex-

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pect that as much as 22 percent of active groundfish capacity may be retired as a result of the Fishing Capacity Reduction Initiative (FCRI). They also estimate that about 80 vessels could be either scrapped, sunk, or directed to other non-fishery related reuses as a result of this sustainable development initiative.

Massachusetts fishermen submitted the most applications (109), followed by Maine (38), New York (7), Rhode Island (4), New Jersey (3) and New Hampshire (3).

The FCRI program is a slightly modified version of the Fishing Capacity Reduction Demonstration Program, a $2 million pilot program which permanently retired 11 groundfish fishing vessels and 26 federal fishing permits. Both programs are voluntary and bids are ranked according to the lowest ratios between bids and average annual groundfish revenues. One key difference between the pilot program and the expanded FCRI is that under the pilot program, successful applicants were required to either scrap or sink their vessels, while under the larger program certain non-fishery reuses are allowed.

NOAA MAKES FIRST AWARDS UNDER DISASTER AID PROGRAM FOR GULF FISHERMEN

The first grants awarded under a program designed to aid Gulf fishermen who have suffered uninsured losses of fishing gear due to natural disasters were announced in late fall by NOAA. Four of the initial grants are to fishers in Louisiana and the remaining grant recipient is in Florida.

The recipients are Royal P. Marie, Chauvin,LA ($7,500); George Sevin, Chauvin, LA ($4,089); Harvey J. Hebert, Pierre Part, LA ($4,954); Bertrand J. Knight, Montegut, LA ($5,904); and Jimmie Burke, Crystal River, FL ($7,500).

On August 3rd, 1995, the late Commerce Secretary Ronald H. Brown announced a $53 million fisheries disaster program to aid three regional fisheries: the Northeast ($25 million); the Pacific Northwest ($13 million); and the Gulf of Mexico ($15 million).

The grants are part of a $5 million gear compensation program —which falls under the Gulf's overall $15 million disaster program— administered by the National Marine Fisheries Service. The program's purpose is to provide financial assistance to commercial fishermen for uninsured loss or damage to fishing gear or vessels due to the effects or after effects of hurricanes, floods, or the March 1993 "Storm of the Century," which wasn't classified as a hurricane but had the damage impact of one. Each award shall be for up to 100 percent of the uninsured loss, except that (1) no single award will exceed $7,500 and (2) no applicant will receive aggregate awards from multiple applications totalling more than $22,500. A $10 million program — also part of the original Gulf $15 million disaster program — to help the Gulf of Mexico fisheries is currently being designed by NOAA and the affected states of Texas, Louisiana, Mississippi, Alabama and Florida.

DELAWARE II TO BEGIN FISHERIES RESEARCH AND ASSESSMENT OPERATIONS

The ability of the National Oceanic and Atmospheric Administration to conduct fisheries research and to assess fish stock levels along the northeast U.S. coast has been enhanced significantly with the completion of a major upgrade to the NOAA ship DELAWARE II. The 46-meter vessel has returned to its home port in Woods Hole, MA, and resumed operations in December.

The DELAWARE II's sea time will be spent primarily in support of the National Marine Fisheries Service's Northeast Fisheries Science Center programs. The data collected by the vessel are used by NMFS, the New England and Mid-Atlantic Regional Fisheries Management Councils, and the Atlantic States Marine Fisheries Commission to determine sustainable yield levels for commercial fish stock and to assess protected species.

The shipyard work to upgrade the DELAWARE II was completed under a NOAA best value contract with Detyen's Shipyard Inc. of Mount Pleasant, SC. The contract included the upgrade of trawl and oceanographic deck equipment, fisheries hydroacoustic systems, a scientific computer system, upgraded laboratory spaces, additional staterooms for scientists, and modern communications and navigation systems.

Prior to the shipyard work, NOAA determined that the basic configuration and physical condition of the DELAWARE II was sufficient to make it a good candidate for a service life extension. Based on NOAA's assessment, extending the vessel's service life for 10-12 years is a cost-effective solution for providing needed vessel support in the Northeast and will satisfy NOAA's needs until more modern ships can be built. NOAA has had little success in finding suitable commercial vessels to charter because the vessels would be required to conduct a full spectrum of fisheries assessment and data collection work — ranging from trawling to oceanographic research. Personnel from the Office of NOAA Corps Operations (ONCO) operate and manage the DELAWARE II and the other research ships and aircraft of NOAA's fleet. ONCO consists both of civilians and of officers of the NOAA Commissioned Corps, which is one of the nation's seven uniformed services along with those of the Department of Defense, Coast Guard, and U.S. Public Health Service.

1997 LIST OF FISHERIES PUBLISHED – LOBSTER FISHERY RECLASSIFIED

On January 2nd the Marine Mammal Protection Act (MMPA) List of Fisheries (LOF) was published in the *Federal Register*, which classifies each U.S. commercial fishery based on its level of interaction with marine mammals. This final list reclassifies fisheries into Category I, II, or III, makes several technical changes to the names and descriptions of several fisheries, and refines regulatory language to promote increased state and federal coordination of fisheries registration under the Marine Mammal Protection Act. Legally permitted participants in fisheries whose registra-

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tion systems have been integrated and automated with other state and federal databases will not be required to submit a Marine Mammal Authorization Program (MMAP) registration or renewal form, and the annual $25 fee will be waived.

As part of the 1997 LOF, NMFS reclassified the Gulf of Maine/Mid-Atlantic lobster trap/pot fishery from Category III into Category I due to its impact on the endangered North Atlantic right whale population. Between 1990 and 1994, two critically endangered northern right whales, nine endangered humpback whales, and six minke whales were seriously injured or killed by entanglement in lobster pot gear in these areas. The agency is investigating an additional two reports of entanglements of humpbacks.

Participants in Category I and II fisheries, those known to have frequent or occasional interactions with marine mammals, are required to register with NMFS under the MMAP, and carry an observer on board,if requested. However, NMFS has completed registration integration for several Northeast fisheries, including all 13,000 state and federal commercial lobster trap/pot fishermen, eliminating any registration burden or $25 fee associated with this reclassification.

The NMFS Alaskan region has also successfully integrated MMAP registration with the Alaska Department of Fish and Game for nearly 5,400 Alaskan fishermen in Category II.

Other changes in the 1997 LOF include reclassification of the California squid purse seine fishery from Category III to Category II due to a historical record of serious injuries and mortalities of pilot whales and new information regarding the overlap in location between pilot whales and this fishery. Other minor changes include combining the offshore monkish bottom gillnet fishery with the New England sink gillnet fishery or the Mid-Atlantic coastal gillnet fishery; redefining the geographic boundary between the New England sink gillnet and Mid-Atlantic coastal gillnet fisheries; and combining the Gulf of Maine mackerel trawl fishery with the squid, mackerel, butterfish trawl fishery. Under the Marine Mammal Protection Act, the LOF is required to be published by NMFS annually.

COMMERCE DEPARTMENT CERTIFIES CANADA UNDER PELLY AMENDMENT FOR WHALING

In a December 12th letter to President Clinton, former Commerce Secretary Mickey Kantor certified Canada under the Pelly Amendment for allowing its Inuit people to take two bowhead whales this year in the Canadian Arctic. Canada's actions of allowing two endangered bowhead whales to be killed this year, including one from a highly endangered stock in the eastern Canadian Arctic, have raised concern over this risk to whaling conservation efforts.

The United States supports aboriginal whaling when it is managed through the International Whaling Commission (IWC), the global body charged with responsibility for the international conservation and management of whale stocks and the regulation of whaling. Canada is not currently a member of the IWC, withdrawing in 1982 and stating at the time that it no longer had any direct interest in the whaling industry or in the related activities of the IWC.

Under the Pelly Amendment to the Fishermen's Protective Act of 1967, the Secretary of Commerce is required to certify to the President when nationals of another country are undermining the effectiveness of an international conservation regime, such as the IWC. The Pelly certification authorizes the President to use his discretion to prohibit the importation of some or all Canadian products. If the President decides not to prohibit the importation of Canadian products, he must inform Congress of his reasons within 60 days.(February 9th)

Two bowhead whales, listed as endangered under the Endangered Species Act, were killed in Canada this summer in hunts allowed by the Canadian Government. One whale was taken on August 17th in the eastern Canadian Arctic from a population that may number as few as 450 animals, and another was taken from the western Canadian Arctic on July 24th. Neither hunt was authorized by the IWC, which had expressed particular concern about whaling in the eastern Canadian Arctic, where bowhead stocks are not known to be recovering.

SUMMER FLOUNDER FISHERY SPECIFICATIONS FOR 1997

In mid-December, 1996, the National Marine Fisheries Service (NMFS) proposed specifications for the 1997 summer flounder fishery that included a coastwide harvest limit, an increase in minimum commercial fish size, and an increase in codend minimum mesh size. The implementing regulations for the fishery require NMFS to publish specifications for the upcoming fishing year and to provide an opportunity for public comment. The intent of these measures is to prevent overfishing of the summer flounder resource.

These measures are based on NMFS' 22nd Stock Assessment Workshop Advisory Report on Stock Status, which reports that the summer flounder stock is at a medium level of historical abundance and is overexploited. Despite the management measures already implemented for the summer flounder fishery, further reductions in exploitation are needed to meet fishing mortality rate targets. These reductions are necessary because historical experience and new analyses indicate that assessments and projections have underestimated fishing mortality and overestimated stock size each year since 1991. The presence of relatively strong incoming recruitment, however, which is supporting the fishery in 1996, affords an opportunity to rebuild the spawning stock biomass while allowing modest catches.

Members of Congress have been concerned with the new quota since several states had a 1996 overage of summer flounder catch that must be deducted from the 1997 quota. Although some fishermen are not pleased with this procedure, NMFS has a responsibility to act in an equitable manner across states and deduct overages when they occur.

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FINAL RULE TO FURTHER PROTECT THREATENED SEA TURTLES

On December 19th, modifications to current sea turtle protection regulations were published in the *Federal Register* in response to high stranding levels from 1994 to 1996. These new measures establish Shrimp Fishery/Sea Turtle Conservation Areas where shrimping effort and sea turtle abundance are high. Within these conservation areas, beginning March 1st, the use of soft Turtle Excluder Devices (TEDs) will be prohibited, bottom-opening hard TEDs must be modified to improve turtle escapement, and hard TEDs will be required in trynets with headrope lengths greater than 3.6 meters. The use of soft TEDs and trynets have been found to be ineffective in successfully releasing endangered sea turtles alive.

Outside the conservation areas, the use of soft TEDs would be prohibited after one year if additional improvements in soft TEDs to effectively release turtles alive cannot be made. However, new soft TED designs can be developed and tested beyond the year from date of publication. Hard TEDs in trynets with headrope lengths greater than 3.6 meters will also be required outside the conservation areas a year after the final rule is published.

The National Marine Fisheries Service (NMFS) has committed funding, along with experts from its Pascagoula, MS laboratory to work with industry over the next year to try to improve the effectiveness of soft TEDs. In addition, the fisheries service is committed to a continuing review of its data regarding TED performance and sea turtle mortality. For further information, see pages 66933-66947 of the December 19th, *Federal Register.*

PROPOSAL TO LIMIT ACCESS TO SHARK FISHERIES

A proposal designed to protect sharks in the Atlantic, Gulf of Mexico and Caribbean was published in the *Federal Register* December 27th. The plan would create a limited access system for sharks (proposed as Amendment 1 to the Fishery Management Plan for Sharks of the Atlantic Ocean) that would establish permit categories as either "directed" or "incidental", would develop eligibility criteria for these permits based on historical participation, and would specify rules to allow for transfer of permits. The National Marine Fisheries Service (NMFS) anticipates this will reduce overcapitalization of the fishery and discourage derby fishing conditions that can cause overfishing and quota overruns.

The fisheries service has determined that the Atlantic shark fishery is severely overcapitalized. Among the 2,700 fishermen who currently hold commercial shark fishing permits, fewer than 140 fishermen target and land sharks on a regular basis. Therefore, NMFS intends to improve shark management by eliminating the latent capacity of more than 2,300 shark permit holders who rarely, if ever, land sharks.

Under the proposal, of the remaining 413 permitted fishermen who land sharks occassionally, 134 fishermen who regularly target sharks will be placed in a "directed" fishery, and 279 fishermen who catch sharks as bycatch will be placed in an "incidental" category.

Officials are seeking public comment on the proposal before Feb. 18th. For more information see the *Federal Register* published December 27th (61 FR 68202).

In another Shark related development, (NMFS) has proposed additional new measures that should reduce fishing mortality, facilitate enforcement and improve the management of sharks.

The current annual quota of 2,570 metric tons which became effective January 1, 1994 has not been effective in reducing mortality sufficiently and should be reduced by 50 percent. Nursery/pupping area closures and minimum sizes could also reduce the mortality. In light of the absence of an effective rebuilding schedule, NMFS believes this represents reasonable management measures in reducing mortality. An increase in the commercial quota was rejected on the basis of recommendations from the Shark Evaluation Workshop (SEW) and members of the Shark Operating Team (OT).

This proposal is based in part on recommendations from a 1994 SEW Report, and the 1996 SEW. It is also based in part from comments received during a series of public scoping meetings held by Fisheries to receive comments from participants and members of fishing groups regarding the Atlantic Shark Fishery.

Members of OT have been consulted and some members have been instrumental in formulating this proposal. Although action is not necessarily based on suggestions made by the OT, the Assistant Administrator under the authority of the framework provisions of the Fishery Management Plan, can make adjustments in management measures which are consistent with the provisions of 305(c) of the Magnuson-Stevens Act and other applicable law.

The deadline for comments was January 21st. Several public hearings will be held. (For additional information see p. 67295 of the December 20th *Federal Register.*)

IMPLEMENTATION OF THE SUSTAINABLE FISHERIES ACT BEGINS

The National Marine Fisheries Service (NMFS) has began implementing the provisions of the Sustainable Fisheries Act (P.L. 104-297) which reauthorized the Magnuson-Stevens Fishery Conservation and Management Act. NMFS has established an Implementation Team headed by the Sustainable Fisheries Office and comprised of representatives from each of NMFS' five regions. A detailed implementation plan has been developed that is made up of activities for each provision in the Act detailing steps to be taken and a completion date (Congressionally mandated or otherwise). NMFS is committed to implementing the new provision and meeting the mandated dates. Finally, NMFS is developing a web site for its implementation activities. This site will include summary information on the status of implementation and contacts for specific questions.

The deadline for comments was January 21st. Several pub-

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lic hearings will be held. (For additional information see p. 67295 of the December 20th *Federal Register*.)

COASTAL OCEAN PROGRAM LEADS INTERAGENCY EFFORT ON HARMFUL ALGAL BLOOMS

In response to heightened concern over the increasing incidence and persistence of blooms of marine algae (micro- and macroscopic plants) which are toxic to human beings and living marine resources, NOAA's Coastal Ocean Program (COP) is coordinating an interagency research program known as ECOHAB (Ecology and Oceanography of Harmful Algal Blooms). Funding provided by Congress in FY 1997 is supporting an interagency initiative to undertake coordinated, well-integrated interdisciplinary studies of fundamental processes underlying harmful algal blooms (HABs) and their impacts. The National Science Foundation, the Environmental Protection Agency, the Office of Naval Research, and NOAA will provide in excess of $3 million to support regional research projects, which include field investigations, laboratory studies, and modeling, to develop a predictive understanding of how physical and biological processes interact to promote bloom development, affect bloom dominance, and contribute to bloom maintenance and decline. Findings from the program will support the development of management measures aimed at mitigation and control of these blooms. To begin the process of developing such measures, COP has co-sponsored three regional HAB Management and Mitigation Workshops (Florida, Texas, and Washington) with the National Fish and Wildlife Foundation.

COASTAL OCEAN PROGRAM COORDINATES NOAA'S PARTICIPATION IN OCEAN PARTNERSHIP EFFORT

The newly authorized and funded National Ocean Partnership Program (NOPP) creates an Ocean Research Leadership Council, with NOAA Administrator Dr. D. James Baker as Vice-Chair, to coordinate and strengthen oceanographic efforts by identifying and carrying out partnerships among federal agencies, academia, industry, and other members of the ocean science community in the areas of data resources, education, and communication. Donald Scavia, Director of the Coastal Ocean Program, is coordinating NOAA's participation as a member of the Interagency Working Group for this effort. A program announcement soliciting pre-proposals on topics including data management and assimilation; coastal ocean prediction; algal blooms; cross-shelf transport; transport, fate, and effects of Arctic Ocean and coastal atmosphere contaminants; effects of sound on marine mammals; and observation technology development closed on January 13th. Up to $11.5 million may be available for this announcement which is subject to final approval by the Leadership Council.

COMMERCE DEPARTMENT AWARDS GOLD MEDAL TO NOAA'S TWA DISASTER RESPONSE TEAM

The U.S. Department of Commerce has awarded its Gold Medal to NOAA's TWA Flight 800 Disaster Response Team from the Office of NOAA Corps Operations and National Ocean Service for its outstanding work in providing precise surveys and maps of the TWA Flight 800 crash debris fields in the Atlantic Ocean in support of victim recovery, salvage and investigative efforts.

NOAA Corps Cmdr. Samuel De Bow, commander of the NOAA ship RUDE, and NOAA Corps Cmdr. Nicholas Perugini, chief of the National Ocean Service's Atlantic Hydrographic Branch, were presented the award on behalf of the entire team in December by former Commerce Secretary Mickey Kantor at a ceremony in Washington, D.C.

The response team was commended for its crucial role in providing precise maps of the Atlantic Ocean debris field off Long Island, New York. The maps were instrumental in victim recovery, salvage and investigative efforts. Within hours after the disaster, the NOAA ship RUDE arrived on the site and began surveying the ocean floor with highly sophisticated side-scan sonar equipment. An on-shore liaison team arrived shortly thereafter, and produced from the RUDE's sonar data precisely located graphic depictions of the debris fields. The products and services provided by the response team at sea and on shore hastened the recovery of the victims and wreckage.

The RUDE's home port, and the National Ocean Service's Atlantic Hydrographic Branch, are located at NOAA's Atlantic Marine Center in Norfolk, VA. NOAA's commissioned officers are part of the NOAA Corps, which is one of the nation's seven uniformed services along with those of the Department of Defense, the Coast Guard, and the Public Health Service.

The Secretary grants the Gold Medal — the Department's highest honorary award — for extraordinary achievements in support of the Department's critical objectives. These achievements have a significant beneficial effect on the nation, and sometimes the world.

A SEAFOOD QUALITY AND SAFETY MILESTONE — WEGMANS FOOD MARKETS JOINS USDC VOLUNTARY CERTFICATION PROGRAM

Wegmans Food Markets has become the first major supermarket chain to participate in the Commerce Department's voluntary seafood Hazard Analysis Critical Control Point (HACCP) certification program. The Commerce Department has for over 40 years been the Good Housekeeping Seal of Approval for the U.S. seafood industry. Beginning January 12th, Wegmans Food Markets reached a major milestone for the voluntary program when Wegmans brought its entire chain of stores, warehouse, and distribution into the U.S. Department of Commerce voluntary seafood HACCP program. Wegmans, which has 53 stores in New York and Pennsylvania, is a family-owned supermarket chain nationally recognized as a leader in quality perishable products and market innovation. The supermarket chain, which worked closely with the Department to develop the quality program's symbol, will display it prominently in its stores and seafood packaging. Wegmans' wide use of the symbol illustrates its solid partnership with the Commerce Department, working through the National Oceanic and Atmospheric

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Administration's National Seafood Inspection Program, which certified the Wegmans Seafood Quality Control Program.

Founded in 1916, Wegmans has in part built its reputation on consumer education. As Danny Wegman, president of the chain, explains, The Department of Commerce voluntary HACCP program will help consumers feel very confident about the seafood they buy from Wegmans. "Our challenge will be to explain the concept and the benefits of the HACCP process to our customers."

Customers will find a video playing in each of Wegmans' seafood departments to help demystify the meaning of HACCP,, a relatively new acronym for the retail customer.

Originally developed for the NASA space program, the HACCP concept means a process is in place that prevents problems from occurring. The HACCP system identifies all critical points in processing and distribution where seafood quality and safety can be compromised and, if necessary, takes corrective action. Participants are required to keep detailed records, which are then verified by the Department of Commerce.

The Department has operated a voluntary fee-for-service seafood inspection program for over 40 years, its mission to facilitate seafood trade in the United States and abroad. The program is committed to certifying the quality and the safety of seafood products so that consumers may obtain the quality products they seek. The Department HACCP-based program has been available since 1992 to all segments of the seafood industry. The USDC certified over 45.4 million kilograms of seafood in 1995 and expects to exceed that figure in 1996.

NOAA ATMOSPHERIC HAPPENINGS

1996 HURRICANE SEASON RESULTS IN AT LEAST 135 DEATHS IN U.S., CARIBBEAN, AND CENTRAL AMERICA AND $3.5 BILLION IN DAMAGES IN U.S.

A near record number of major hurricanes punctuated an active season of Atlantic tropical cyclones last year. Thirteen named storms produced nine hurricanes, six of them with wind speeds exceeding 176 kilometers per hour, according to NOAA's National Hurricane Center.

"Thirteen named storms in 1996 ties four other years — most recently 1984 — as the ninth most active Atlantic season since records began in 1886. This puts 1996 easily within the top ten percent of our 110-year record," said Bob Burpee, director of the National Hurricane Center.

A tropical storm is named when its (one minute sustained surface) wind speed reaches 62 kph. It is classified as a hurricane when its wind speed reaches 118 kph. A hurricane is considered major when its winds top is 176 kph, equivalent to Category 3 or greater on the Saffir-Simpson Hurricane Scale, a one-to-five scale that measures hurricane intensity.

"In our collective staff memory, this is the first year that every tropical depression turned into a named storm," Burpee said. An average season in the Atlantic, Caribbean and Gulf of Mexico has nine named storms, six of them reaching hurricane strength, with two of major strength.

The 1996 hurricane season was much more active than the long term average of six hurricanes, two of which are major. The season's nine hurricanes tie 1955 and 1980 as the eighth most active on record. The season's six major hurricanes comprise the highest number in any one year since 1961 (with eight).

For comparison, 1995 was the second most active Atlantic hurricane season on record (after 1933's 21) with 19 named storms, of which 11 were hurricanes, five categorized as major. Last year's 13 tropical storms are significant when coupled with the 21 named storms in 1995's active season, Burpee said. The combined total of 32 tropical storms is the largest number in two consecutive years since the National Hurricane Center was organized in 1935.

Burpee observed that while two years does not constitute a trend, it is noteworthy to have two very active years (1995-96) coming after four very inactive ones.

"Imbedded in these storm numbers are hard realities: 1996's tropical cyclones were responsible for the deaths of at least 135 people throughout the Caribbean, Central America and United States and more than $3.5 billion in damage in the United States only," said Burpee.

"Preparation and vigilance are required in any year."

NATIONAL WEATHER SERVICE RETIRES LAST OF ITS ORIGINAL RADARS

Nineteen fifty-nine was the year the National Weather Service installed one of its first weather radar systems at South Carolina's Charleston Airport. Thirty-seven years later, the Charleston radar, Serial Number 16, has been displaced by technology, the last of its kind decommissioned by the National Weather Service in favor of a state-of-the-art Doppler weather radar.

"We can finally throw away the grease pencils," said Charleston Meteorologist David George, referring to the technique used to trace weather systems as they passed across the old radar screen. "With the Doppler radar, map back grounds are built into the system and storms can be tracked automatically, freeing up the radar operator for other tasks,"grounds are built into the system and storms can be tracked automatically, freeing up the radar operator for other tasks," George said, adding, "Gone are the days when forecasters had to manually turn a crank to adjust the radar's scan elevation or scramble for spare parts no longer manufactured in this country."

Designed in 1957 using World War II technology, the old Charleston radar was part of a network that served the nation

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well for more than 35 years. For the first time, a forecaster had an electronic picture, albeit primitive by today's standards, of approaching storm systems.

"It took considerable skill to determine storm intensities from green blotches on the radar scope," said Steve Rich, meteorologist-in-charge of the Charleston office. "It took even greater skill to tell if a storm had tornadic characteristics."

Like the user-friendliness built into much of today's technology, the new Doppler radars not only produce highly accurate storm signatures, but will sound an alarm if a storm looks like it will spawn a tornado. "For the first time in history, we are now able to broadcast a tornado warning for a given area before a tornado is formed," Rich said. "This is a remarkable technological achievement and has already saved many lives."

Forecasters liken Doppler images to a CAT scan as the system can dissect approaching weather systems at different elevations and produce brilliant color-coded portraits of a storm's most intense areas. Hail can be distinguished from rain and the machine can eventually tell how much precipitation a storm dropped in a given area.

The weather service's installation of 123 Doppler systems is part of a nationwide modernization effort designed to take advantage of the latest in computer and communications technology. More than 100 radars are already on line, with the network expected to be completed next year.

"With 119 modernized weather forecast offices associated with each of the new Doppler radars, the United States has the most advanced weather forecast and warning capability of any nation," said Dr.Elbert W. Friday Jr., assistant administrator for weather services. "In just a few short years, our modernization program will have paid for itself by providing more accurate weather information to the American public and our nation's many commercial activities."

ABRUPT CLIMATE CHANGE DURING LAST GLACIAL PERIOD COULD BE TIED TO DUST-INDUCED REGIONAL WARMING

Preliminary new evidence suggests that periodic increases in atmospheric dust concentrations during the glacial periods of the last 100,000 years may have resulted in significant regional warming, and that this warming may have triggered the abrupt climatic changes observed in paleoclimate records, according to a NOAA scientist.

Dr. Jonathan T. Overpeck, head of the Paleoclimatology Program at NOAA's National Geophysical Data Center in Boulder and a team of scientists reported the preliminary findings of their recent climate research in the December 5th issue of Nature magazine.

Dr. Overpeck and the team conducted global climate model simulations to examine the potential role of tropospheric dust in glacial climates. Comparing "modern dust" with "glacial dust" conditions, they found patterns of regional warming that increased at progressively higher latitudes. The warming was greatest (up to 4.4 degrees Celsius) in regions with dust over snow- and ice-covered areas.

The team conducted another set of simulations using interactive sea surface temperatures. The mid- to high-latitude warming was reduced from 4.4 degrees C to 2.4 degrees C, but the main regions of significant warming remained concentrated in areas where the dust loading coincides with snow- or ice-covered land areas. The authors point out that their results are conservative in several respects, and that the regional warming may have been significantly greater than 2.4 degrees during some extreme dust events.

The scientists found that mineral dust appears to have been the most globally distributed aerosol during glacial periods, with the largest radiative effect over snow- and ice-covered regions. Episodic dust loading may have provided the warming needed to trigger the ice, ocean and atmospheric changes associated with abrupt climatic events during the past 100,000 years, they wrote.

Many abrupt climatic events of the last 100,000 years, which included dramatic reorganization of the Earth's atmosphere-ocean system, are still poorly understood. The new results regarding the possible impacts of high atmospheric dust concentrations shed new light on the mechanisms behind these climate reorganizations, and hence on how the coupled atmosphere-ocean system may respond in the future.

NWS FORECASTS ALLOWED WESTERN U.S. TO PREPARE FOR WINTER STORMS

The Western U.S. had ample warnings for the late December series of storms that brought heavy snows, freezing rains and devasting flooding to the region. Ultimately, it is expected that the death toll for these storms will approach as many as 30 people and the cost reach $3 billion.

As the storm arrived, the National Weather Service's (NWS) National Centers for Environmental Prediction (NCEP) forecasters provided specific predictions for wind gusts exceeding 160 kilometers per hour along the coast and at the higher elevations. Flooding drove as many as 130,000 people from their homes in California. The Walker, Carson, and Truckee Rivers east of the Sierra Mountains in the Reno area saw record flooding. Most reservoirs were already filled because of previous rains.

More than a week ahead of the storm's arrival, computer models at NCEP in Camp Springs, MD, gave clear indictions of the pending storms. Local NWS offices issued public outlooks and contacted emergency managers. Warnings were issued 12 to 30 hours in advance. NWS offices in Boise, Reno, Monterey, and Sacramento, sent forecasters to emergency operations centers to aid managers and provide information to the media. NWS offices made extensive use of new Doppler radars and satellites to pinpoint areas of most intense rainfall and accurate flooding forecasts. The work of the NWS's River Forecast Centers (RFC) in Portland and

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Sacramento was critical for forecasters and reservoir operators.

Many forecasters worked as many as 14 hours a day for more than a week and the modernized weather service was praised by the Seattle Post-Intelligencer as "remarkably right on the mark in predicting almost the hour and the inch the snow and rain that pelted the Northwest...." An Oregon emergency manager said "I was very pleased with the weather forecast...your information was...on target...."

NOAA-FUNDED STUDY INDICATES "PREDICTABILITY" OF NORTH ATLANTIC CLIMATE

Scientists funded by the National Oceanic and AtmosphericAdministration (NOAA) have taken a small but necessary first step toward demonstrating the feasibility of predicting Eurasian climate conditions a year or more in advance — such as the likely general severity of winters. Writing in the current issue of the journal Science, Stephen M. Griffies of NOAA's Geophysical Fluid Dynamics Laboratory in Princeton, NJ, and Kirk Bryan of Princeton University say that their supercomputer simulations show that with sufficient monitoring of oceanic conditions such as sea surface heights, salinity and temperatures by satellites and ships, scientists could make accurate long-term predictions of North Atlantic Ocean conditions that, along with the overlying atmosphere, are a major influence on the climate of Europe and western Asia.

Both oceanic and atmospheric conditions affect climate. Although it is not possible to predict weather conditions more than a few days in advance because of the chaotic nature of the atmosphere, earlier studies had indicated that the oceans react much more slowly to changing influences and thus retain a greater memory of climate trends.

NATIONAL WEATHER SERVICE SELECTS CHAFFEE RIDGE FOR NEW ARKANSAS DOPPLER RADAR

The National Weather Service has selected Chaffee Ridge as the new Doppler radar site for western Arkansas/eastern Oklahoma. The site is approximately 4.8 kilometers south of Fort Smith on a ridge line. Slatington Mountain was the original site selected. Due to environmental regulations of the U.S. Forest Service the NWS was required to enter into a 45-day public comment appeal process. Because there has been a great desire to install the radar in time for the spring 1997 severe weather season, the NWS decided to assess alternative sites

This new location mitigates the degradation of service identified by the Secretary's Team and provides good radar coverage for western Arkansas and southeastern Oklahoma areas. The Chaffee Ridge site is much easier to install a radar on and power and communications are very close by. Construction is scheduled to begin at this site in February and be ready in time for the 1997 severe storm season. "The National Weather Service is committed to installing the new radaras quickly as possible...," said Dr. Elbert W. Friday, Jr., NWS director

The NWS is also moving quickly to place radars at two other sites identified in a 1995 Secretary's report on the adequacy of Next Generation Radar (NEXRAD) Coverage.

--A site north of North Webster, Indiana has been selected for a collocated Doppler weather radar site and forecast office to service northeast Indiana and northwest Ohio. Construction is scheduled to begin in May with the radar operational by late summer. Temporary trailers will be located on the site and used for offices until the completion of the forecast office in October, 1998.

--Construction is expected to begin in March for a site just north of Hytop, Alabama for a radar to serve the Chattanooga and Huntsville areas. It is expected to be operational by early summer.

NOAA SCIENTIST SAYS THAT CONTINUED FUTURE GROWTH IN GREENHOUSE GASES COULD LEAD TO SIGNIFICANT GLOBAL CLIMATE CHANGES

Dr. Daniel L. Albritton, Director of the NOAA's Aeronomy Laboratory, led a roundtable discussion on the topic of climate change with a bipartisan group of 15 U.S. Senators and Representatives at the 1996 Congressional Conference on International Environmental Issues in Lisbon, Portugal, last November. Organized by the Aspen Institute, the conference was titled "The Convergence of U.S. National Security and the Global Environment." The roundtable format was specifically chosen to encourage the exchange of information and ideas between the Members and eight invited speakers from industry, the university community, the Federal government (Dr. Albritton), and non-governmental organizations.

Dr. Albritton told the Members that greenhouse gases are increasing in the atmosphere because of human activities and they are increasingly trapping more heat within the atmosphere and that continued future growth of greenhouse gases are predicted to lead to very significant global climate changes. Over the next century, these changes could lead to about a 1.6 degree celsius increase in average global temperatures. That would exceed the natural changes in the past 10,000 years. That could lead to a corresponding sea level rise of 50 centimeters. The exact outcomes are impossible to measure but there is a possibility of more or less severe floods and droughts from region-to-region because of more vigorous hydrological curve, according to a chart which accompanied Dr. Albritton's presentation.

Additionally, the earth may be entering a period of climatic "surprises" that we have not experienced in the past because some of the climate changes can be rather abrupt.

Dr. Albritton's discussion concerned the science and effects of climate change, focusing on "knowns and unknowns" on the topic. The Conference and Dr. Albritton's discussion with the Members comes at a time when decision makers are considering various options concerning the issue of climate change. Key meetings will occur during 1997 to determine both national and international approaches on this global environmental issue.

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LOW COST DRIFTING BUOYS SOON TO INCLUDE WIND SENSORS; SHOULD IMPROVE WEATHER FORECASTS GLOBALLY

Low cost drifting buoys, deployed world-wide by the Global Drifter Center at NOAA's Atlantic Oceanographic and Meteorological Laboratory (AOML) in Miami, will soon add wind speed and direction to the existing suite of sensors. Using a technique called Wind Observation Through Ambient Noise (WOTAN), wind speed is determined by measuring the acoustic noise level in the ocean.

By adding hydrophones to the drifters, which already report ocean currents, sea temperature, and barometric pressure, the drifters are expected to become a primary tool for both meteorologists and oceanographers.

For fifteen years, standardized drifters developed at Scripps Institute of Oceanography have been used by research oceanographers to chart ocean currents. The recent addition of a barometric pressure sensor has captured the attention of meteorological agencies in the U.S., France, the United Kingdom, South Africa and elsewhere. Over 330 of these inexpensive devices have been deployed in all ocean basins through cooperative ventures between oceanographers and meteorologists, and they are currently reporting to forecast centers worldwide. Data are transmitted to Argos instruments aboard NOAA's polar orbiting satellites, downloaded and processed by Argos, and disseminated through the Global Telecommunications System.

In October 1996, the first drifters fitted with WOTAN sensors were launched in the Labrador Sea, in an experiment funded by the Office of Naval Research. WOTAN sensors are inherently rugged, with no moving parts to fail. They measure winds over a large area rather than at a single point, which may relate better to standard 10 meter height winds than a conventional rotor in a wave trough. The National Weather Service (NWS) will soon add them to an existing drifter evaluation program off the U.S. west coast.

Faced with the loss of a large number of more expensive moored buoys in that area, the NWS began using barometer drifters in June, 1995. By satisfying requirements of both oceanographers and meteorologists, the drifters make the most use of limited budgets.

The drifters are almost identical to ten recently air deployed by AOML and the Naval Oceanographic Office (NAVOCEANO) in the tropical Atlantic for use in hurricane forecasts during the 1996 season. NAVOCEANO has provided air deployment assistance in the Southern Ocean, Indian Ocean, and Pacific Ocean as well. Air deployments typically occur as ancillary operations to existing aircraft missions, again maximizing the use of limited resources.

Globally, cooperation between agencies stretches the resources even further. For example, US oceanographers wishing to study ocean currents in the Indian Ocean have joined forces with Mateo-France, which funded the addition of barometers to the drifters for use in weather forecasts. The drifters were air deployed by NAVOCEANO in December, and the resulting data are quality controlled by as many as 15 meteorological services operating in concert under the World Meteorological Organization's Data Buoy Cooperation Panel. The result should be better weather forecasts for India, where hundreds recently died in a cyclone. Additional sensors are being adapted to the drifters to observe wave height, solar radiation, rainfall and ocean color. Detailed current studies have been conducted by adding Global Positioning Systems satellite receivers. As electronics shrink in cost and size, more and more data will become available from these small drifters. They are easily and inexpensively shipped to, and deployed by, volunteer ships, research vessels, and aircraft. There are over 800 deployed at present. A world wide website, *http://www.aoml.noaa.gov/phod/dac*, describes the drifters and has maps showing the search vessels, and aircraft. There are over 800 deployed at present.

AS GLOBAL CLIMATE CHANGE WARMS MORE FLOODS ARE EXPECTED

As the global climate continues to warm, extreme flooding like that recently experienced in the western United States is expected to become more frequent, reports a senior NOAA scientist. Although it is impossible to link any particular weather or climate event to global warming, and present-day climate models are not sophisticated enough to accurately pinpoint region of the globe where changes will be the largest, extreme flooding is expected to become more frequent across the United States due to an increase in precipitation extremes, said Thomas Karl, senior scientist at NOAA's National Climatic Data Center in Asheville, NC.

Observations since the beginning of the 20th century for the United States indicate that intense precipitation events have already increased by 20 percent, and cold season precipitation has increased by nearly 10 percent, Karl said. An increase in the intensity of precipitation has led to an increased flood potential.

Why does this happen? Increased concentrations of

Internet Homepage Redesign Underway

Daily Updates are now provided on NOAA's Legislative Affairs Homepage while Congress is in session. A redesigned web site should be up and running by mid-February. The web site can be accessed at *http://www.noaa.gov/noaa-ola*

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greenhouse gases in the atmosphere lead to an increase in mean global temperatures. As the global climate warms, the hydrological cycle is affected because a portion of the heating will go into evaporating larger quantities of water from the earth's surface. As global temperatures increase, the atmosphere can also support greater amounts of water vapor. In general, an increase in the proportion of extreme and heavy precipitation events would occur where there is enough atmospheric instability to trigger precipitation events. This means more flooding with an increase in extreme precipitation events, but also more droughts. Droughts arise where and when the atmosphere is not favorable to precipitation, and the evaporated moisture is transported to other regions. The additional evaporation from the surface leads to a drying of the soil, and more severe and widespread droughts.

Comparisons of climatologies, and from climate models run with present-day and doubled carbon dioxide concentrations, reveal some dramatic changes in the hydrologic cycle as the global climate warms, Karl said. When carbon dioxide concentrations are doubled, the expected frequency and extent of extreme droughts and intense precipitation in the United States increase (more than five centimeters per day) and in Canada (more than 2.5 centimeters per day), some models showing a three to four-fold increase. There is also a distinct increase in wintertime or cold season precipitation.

Recent events, like the flooding last fall and the Northwest flooding this winter, offer examples of the kind of situations that are expected to be associated with an increased risk of occurrence, Karl said.

LEGISLATION INTRODUCED

Rep. Bud Shuster (R-PA), on January 7th, HR 4 to provide off-budget treatment for the harbor maintenance trust fund and other transportation funds.

Rep. Michael Forbes (R-NY), on January 7th, HR 55 to amend the Marine Protection, Research, and Sanctuaries Act of 1972 relating to the dumping of dredged material in Long Island Sound, for other purposes.

Rep. Michael Crapo (R-ID), on January 7th, HR 128 to preserve the authority of the states over water within their boundaries, to delegate the authority of the Congress to the States to regulate (ocean) water, and for other purposes.

Rep. Randy Duke Cunningham (R-CA), on January 7th, HR 131 to provide that a new federal program shall terminate not later than 5 years after the date of the enactment of the law that authorizes the program.

Rep. Randy Duke Cunningham (R-CA), on January 7th, HR 132 to establish a second National Blue Ribbon Commision to Eliminate Waste in Government.

Rep. Elton Gallegly (R-CA), on January 7th, HR 174 to require the relocation of a National Weather Service radar tower which is on Sulphur Mountain near Ojai, CA.

Rep. Porter Goss (R-FL), on January 7th, HR 180 imposing certain restrictions and requirements on the leasing under the Outer Continental Shelf Lands Act of lands offshore Florida.

Rep. Rick Lazio (R-NY), on January 7th, HR 219 to establish a federal program to provide reinsurance for state disaster insurance programs.

Rep. Bill McCollum (R-FL), on January 7th, HR 230 to ensure that insurance against the risk of catastrophic natural disasters, such as hurricanes, is available and affordable, and to provide for expanded hazard mitigation and relief, and for other purposes.

Rep. Robert Menendez (D-NJ), on January 7th, HR 238 to amend the Oil Pollution Act of 1990 to make the act more effective in preventing oil pollution in the nation's waters through enhanced prevention of, and improved response to, oil spills, and to ensure that citizens and communities injuried by oil spills are promptly and fully compensated, and for other purposes.

Rep. Frank Pallone (D-NJ), on January 7th, HR 244 to terminate ocean dumping at the Mud Dump Site and other sites within the New York Bight Apex off the coast of New Jersey.

Rep. Ed Royce (R-CA), on January 7th, HR 271 to establish a second National Blue Ribbon Commission to Eliminate Waste in Government.

Rep. Don Young (R-AK), on January 7th, HR 374 to amend the act popularly known as the Sikes Act to enhance fish and wildlife conservation and natural resources management programs.

Rep. Frank Pallone (D-NJ), on January 9th, HR 393 to prohibit the commercial harvesting of Atlantic striped bass in the coastal waters and the Exclusive Economic Zone.

Rep. Wayne Gilchrest (R-MD), on January 9th, HR 408 to amend the Marine Mammal Protection Act of 1972 to support the International Dolphin Conservation Program in the Eastern Tropical Pacific Ocean, and for other purposes.

Rep. Jim Saxton (R-NJ), on January 9th, HR 437 to reauthorize the National Sea Grant College Program Act.

Rep. Jim Saxton (R-NJ), on Janauary 9th, HConRes 8 expressing the sense of the Congress with respect to the significance of maintaining the health and stability of coral reef ecosystems.

Sen. Robert Smith (R-NH), on January 21st, S 8, the Superfund Cleanup Acceleration Act of 1997.

Sen. Ted Stevens (R-AK), on January 21st, S 39, to amend the Marine Mammal Protection Act to support the International Dolphin Conservation Program in the eastern Tropical Pacific Ocean.

Sen. Patty Murray (D-WA), on January 21st, S. 200, to designate a portion of the Columbia River as a recreational river.

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Dave Jansen (NOS) - Ocean Team, 202/482-4981, Ocean and Coastal Resources Management (OCRM), Coastal Zone Management, Marine Sanctuaries, Estuarine Research Reserves,; Non-point Source Water Pollution (sec. 6217); Clean Water Initiative; South Florida Ecosystem Restoration; Coastal Hazards and National Disaster Response Legislation, National Flood Insurance, International Year of the Reef.

Alan Risenhoover (Team Leader) /Elaine Denning/Laurel Bryant (NMFS)- Fisheries Team, 301/713-2263, Fisheries Conservation and Management, Fisheries International Affairs (GATT-fisheries trade), Protected Resources, Endangered Species, Marine Mammals, Habitat and Conservation, Magnuson Act, Whaling Commission, and Seafood Inspection.

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LATE BREAKING NEWS

NOAA TO BE MAJOR BENEFICIARY OF RELEASE OF U.S.-RUSSIAN DECLASSIFIED ARCTIC OCEAN DATA

Vice President Al Gore on January 14th announced the formal release of a wealth of oceanographic data about the Arctic Ocean derived from research gathered secretly by the U.S. and the former Soviet Union during the Cold War.

Dr. D. James Baker, Under Secretary for Oceans and Atmosphere, said that the agreement is expected to double the knowledge oceangraphers and other scientists have of the Arctic and its effects on the world. The information could also lead to a better understanding of global warming because the Arctic is extremely sensitive and serves as an "early warning system" on warming trends, Dr. Baker said.

The NOAA Administrator also said that the declassified data is expected to aid in understanding how global ocean currents, temperatures and other characteristics are generated by Arctic waters.

Vice President Gore announced the breakthrough at National Geographic Society headquarters in Washington, D.C. Collected over five decades by the intelligence agencies and military commands of the United States and former Soviet Union, this data has until now been off-limits to all but a few carefully selected scientists. Acquired by the Central Intelligence Agency, the National Reconnaissance Office, the former Soviet KGB, the Arctic files have been tightly held secrets used for plotting submarine batttle strategies and in the event of nuclear war.

The Russians, who have amassed 70 percent of what is known about the Arctic region, are turning over data from 1.4 million observations gathered from some 100 far-flung polar intelligence stations. Adm. Paul Gaffney, commander of the U.S. Navy Oceanography Command and chief of naval research, said the cooperative project will be used to track the movement and dangers of large amounts of nuclear waste Russians have been dumping in the Arctic. Meticulous records of under-ice ocean currents and temperatures at various depths were kept, in part, because such variables affect the workings of sonar and schemes to make nuclear submarines "stealthy" or undetectable.

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SECRETARY-DESIGNATE DALEY TELLS SENATORS THAT HE 'UNDERSTANDS IMPORTANCE OF NOAA..."

Secretary-designate William Daley at his January 22nd confirmation hearing told the Senate Commerce, Science, and Transportation Committee that he "understands the importance of NOAA..." in response to a statement delivered by Sen. John Kerry (D-MA), Ranking Democrat on the Oceans and Fisheries Subcommittee during the 104th Congress. Sen. Kerry referred to the strong fisheries enforcement measures and stock replenishment efforts during late Secretary Ron Brown's and former Secretary Mickey Kantor's administrations and their importance to the Northeast. Mr. Daley said he appreciated Sen. Kerry's comments while stating that his response was somewhat "hampered" because of limited experience with fisheries issues. Sen. Kerry also expressed strong support for NOAA's global climate change program as the budget was pared down. The Massachusetts Democrat said NOAA's global climate change scientific contribution was "vital" to the Committee.

Sen. Ted Stevens (R-AK) urged Mr. Daley to proceed with deployment of the Advanced Weather Interactive Processing System (AWIPS). Sen. Stevens said that the Department's Inspector General was delaying full implementation of the system. AWIPS work stations will be capable of receiving and processing the huge volume of data from the Doppler Weather Radars, Weather Satellites, and the new Automated Surface Observing Systems. The Alaskan Republican also urged Mr. Daley to support the cleanup of the 49th state's Pribilof Islands. NOAA is now reviewing claims for environmental damage incurred from previous federal activities on the Pribilofs.

Sen. Byron Dorgon (D-ND) and Sen. Olympia Snowe (R-ME) expressed concern about what they described as the degradation of Doppler Weather Surveillance Radar coverage in northwest North Dakota and Northern Maine and the need for corrective action as required under current federal law. Both described the adverse impact of degraded coverage to livestock and agriculture. Sen. Snowe described for Mr. Daley the groundfish industry collapse in New England which "represents a way of life for generations of families in Maine." She asked specifically about her amendment to the Magnuson-Stevens Act mandating negotitated rulemaking. Secretary-designate Daley said that "in general" he supported this approach.

SENS. SNOWE AND FRIST NAMED CHAIRS OF KEY NOAA AUTHORIZING SUBCOMMITTEES

At its January 22nd organizational meeting, the Senate Commerce, Science, and Transportation Committee named chairs for six subcommittee, including two critical to NOAA programs. Selected to lead the Oceans and Fisheries Subcommittee was Sen. Olympia Snowe (R-ME). The subcommittee authorizes programs for the National Marine Fisheries Service, National Ocean Service, the ocean-related programs of the Office of Oceanic and Atmospheric Research, and the NOAA Corps. She replaces Sen. Ted Stevens (R-AK), who remains a Committee member.

Sen. Bill Frist (R-TN) was named chair of the Science and Technology Subcommittee. He replaces Sen. Conrad Burns (R-MT). Sen. Frist is also a physician. His subcommittee authorizes programs for the National Weather Service, the National Environmental Satellite, Data, and Information Service, the atmospheric programs of the Office of Oceanic and Atmospheric Research, and NOAA's global climate change programs.

Subcommittee members are expected to be announced shortly.

LEGISLATIVE HOMEPAGE ON-LINE

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